

Serial No. 09/507,079

Group Art Unit: 1764

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 is amended.

1. (Currently amended) A CO remover, comprising:

an air mixer for mixing air with hydrogen-rich gas including CO to generate mixed gas;
and

a selective oxidative catalytic device for selectively oxidizing the CO by having the mixed gas pass through a selective oxidative catalyst bed,

the selective oxidative catalytic device including:

a gas passing tube that has the selective oxidative catalyst bed,

a gas blending unit for blending part of the mixed gas that is passing through the selective oxidative catalyst bed further from an inner surface of the gas passing tube and remaining part of the mixed gas that is passing through the selective oxidative catalyst bed nearer to the inner surface of the gas passing tube at a point within the selective oxidative catalyst bed,
and

a double-walled cylinder with an annular clearance formed therebetween for cooling liquid water to pass through, the cylinder being disposed upstream from the gas blending unit,

wherein the gas blending unit is formed from an element projecting inward from the inner surface of the gas passing tube so as to partially obstruct the gas passing tube.

2. (Canceled)

3. (Canceled)

4. (Previously presented) The CO remover according to Claim 1, wherein the cooling unit includes a heat sink adjacent to the outer surface of the gas passing tube.

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5 - 6. (Canceled)

7. (Previously presented) The CO remover according to Claim 1, wherein the element is circularly disposed around the inner surface of the gas passing tube.

8. (Original) The CO remover according to Claim 7, wherein 25 to 90 % of an internal sectional area of the gas passing tube is obstructed by the element.

9. (Original) The CO remover according to Claim 7, wherein the element is a washer ring element.

10. (Withdrawn) The CO remover according to Claim 1, wherein an internal diameter of the gas passing tube downstream from the gas blending unit is smaller than an internal diameter of the gas passing tube upstream from the gas blending unit.

11. (Withdrawn) The CO remover according to Claim 10, wherein an internal sectional area of the gas passing tube downstream from the gas blending unit is 25 to 90 % of an internal sectional area of the gas passing tube upstream from the gas blending unit.

12. (Original) The CO remover according to Claim 1, wherein a length between a start of the selective oxidative catalyst bed in a direction of a flow of the mixed gas and the gas blending unit is no shorter than 1/3 of a length between the start of the selective oxidative catalyst bed and an end of the selective oxidative catalyst bed in the direction of the flow of the mixed gas.

13 - 14. (Canceled)